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## MEMORANDUM

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**DATE:** OCTOBER 24, 2014  
**TO:** SHERRY GLASS, TDWR  
**CC:** CHAD AUGUSTIN, TDWR  
**FROM:** JOHN HOFFELT, PG  
**RE:** EXCESSIVE SEDIMENT DISCHARGE NORTH FORK MILL CREEK

On October 21, 2014, Candice Teichert (US EPA) and John Hoffelt visited the Wrigley Charcoal Site in Hickman County, Tennessee, to familiarize new consultants with the site and to meet with residents who expressed concern about a black deposit that became visible after a clear-cut logging operation. Along the way to meet the residents, Ms. Teichert and Mr. Hoffelt noticed extremely high sediment load (muddy water) in North Fork Mill Creek. (During Mr. Hoffelt's 10-year history with the site, this condition had never been observed.)

Upon meeting the residents, they remarked about the changes resulting from the clear-cut operation, including the muddy water in the creek. Dr. Tom Edmonds stated that within the last month, he spoke with Chad Augustin about this matter. Dr. Edmonds told us that Mr. Augustin had a state forester look at the logging operation and that no runoff issues were identified.

After meeting with the residents about their concerns, Ms. Teichert and I followed the turbid discharge to its source of origin and photo-documented the stream conditions. We found that the source was not the clear-cut operation, but rather the source was "Filter Backwash and Sedimentation Tank Wastewater" from the Bon Aqua-Lyles Utility District. The discharge outfall is marked with a sign identifying the National Pollutant Discharge Elimination System (NPDES) permit No. TN0059951.

A map showing the locations of the photographs is attached to this memo, and the photographs are also attached, as described herein.

Photo 1 shows the condition of North Fork Mill Creek where we first observed the muddy condition, about 1.1 miles downstream from the NPDES discharge point. At the next point that Oak Hill Road is next to the creek, we observed turbid water flowing from the Unnamed Tributary on the east side of the road. Water in North Fork Mill Creek above this confluence was clear. Photos 2, 3, 4, and 5 were taken at this location, showing the effects of the turbid inflow. We were able to view the Unnamed Tributary in two locations as we ascended the hill on Wrigley Road, as shown in Photos 6 and 7. We followed the flow to its origin at the Bon Aqua-Lyles Utility District outfall, as shown in Photo 8. Photo 9 shows the identifying sign at the outfall.

The original photographs at high resolution are available, if needed.

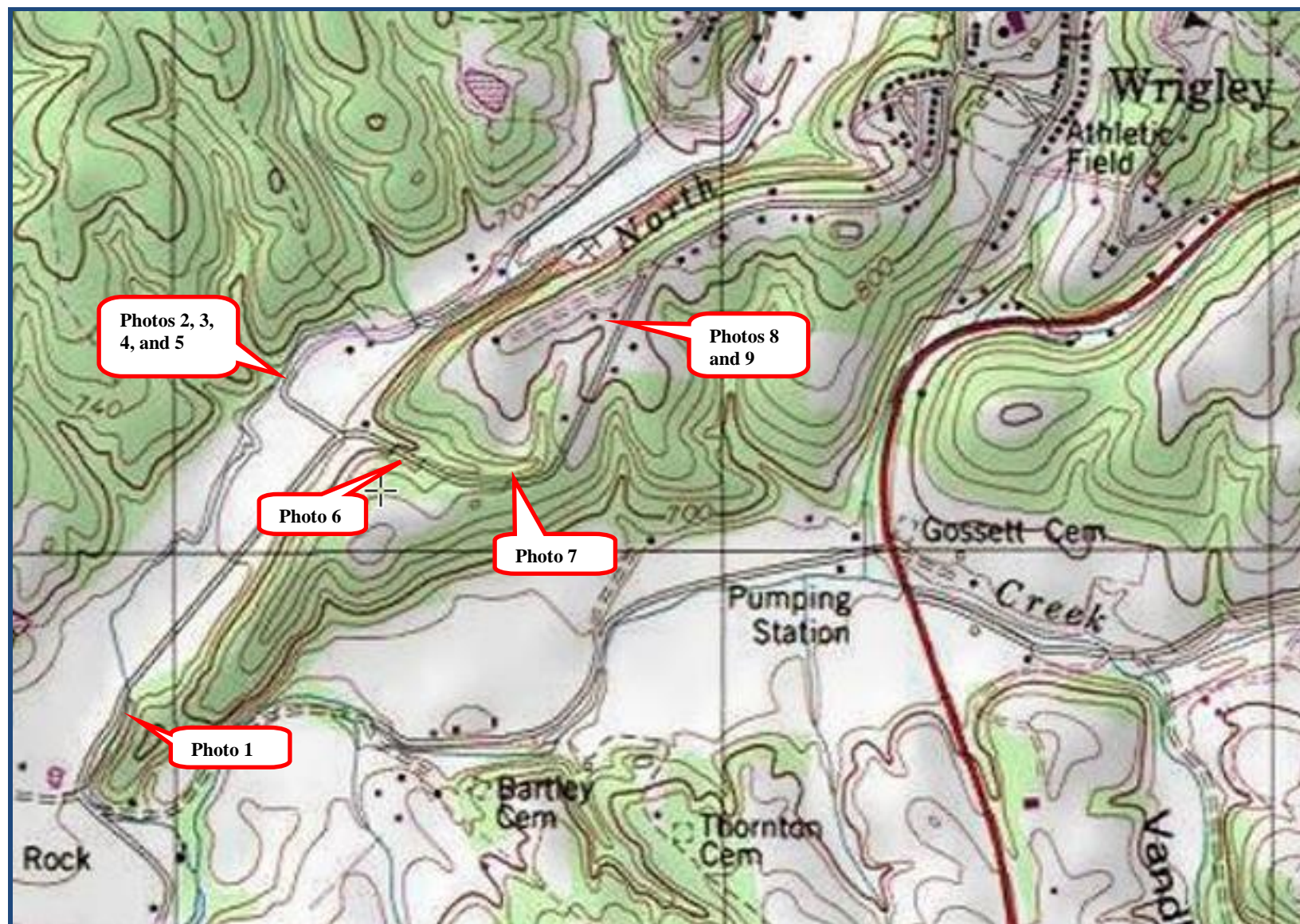






Photo 1      Site: North Fork Mill Creek      Date: October 21, 2014  
Time: 1422 hrs      Direction: Southeast      Personnel: John Hoffelt, TDOR; Candice Teichert, US  
EPA      Description: Condition of North Fork Mill Creek at location 35.89085 -087.36672,  
showing excessive turbidity.



Photo 2      Site: North Fork Mill Creek      Date: October 21, 2014  
Time: 1424 hrs      Direction: Northeast      Personnel: John Hoffelt, TDOR; Candice Teichert, US  
EPA      Description: Condition of North Fork Mill Creek at location 35.89638 -087.36358,  
showing clear water conditions upstream of the unnamed tributary discharge.



Photo 3      Site: North Fork Mill Creek      Date: October 21, 2014  
 Time: 1425 hrs      Direction: Southwest      Personnel: John Hoffelt, TDOR; Candice  
 Teichert, US EPA      Description: Confluence of North Fork Mill Creek and Unnamed  
 Tributary discharge at location 35.89638 -087.36358, showing clear water of North Fork Mill Creek on  
 right and turbid water from Unnamed Tributary on left.



Photo 4      Site: North Fork Mill Creek      Date: October 21, 2014



Time: 1425 hrs      Direction: Southeast      Personnel: John Hoffelt, TDOR; Candice Teichert, US EPA  
Description: Culvert discharge into North Fork Mill Creek from Unnamed Tributary at location 35.89638 -087.36358, showing turbid water entering creek.



Photo 5      Site: North Fork Mill Creek      Date: October 21, 2014  
Time: 1424 hrs      Direction: Southeast      Personnel: John Hoffelt, TDOR; Candice Teichert, US EPA  
Description: Discharge from Unnamed Tributary at location 35.89628 - 087.36337, on west side of Oak Hill Road, upstream end of culvert leading to North Fork Mill Creek.



Photo 6      Site: North Fork Mill Creek      Date: October 21, 2014



Time: 1429 hrs      Direction: North      Personnel: John Hoffelt, TDOR; Candice Teichert, US EPA  
Description: Turbid water (bottom part) and mud flow deposit (top part) in Unnamed Tributary to North Fork Mill Creek at location 35.89499 -087.36067.



Photo 7      Site: North Fork Mill Creek      Date: October 21, 2014  
Time: 1429 hrs      Direction: Northwest      Personnel: John Hoffelt, TDOR; Candice Teichert, US EPA  
Description: Turbid water and mud flow deposits in Unnamed Tributary to North Fork Mill Creek at location 35.89468 -087.35908.



Photo 8      Site: North Fork Mill Creek      Date: October 21, 2014

Time: 1434 hrs      Direction: Southwest      Personnel: John Hoffelt, TDOR; Candice Teichert, US EPA  
Description: Turbid water discharge from Bon Aqua-Lyles Utility District outfall into Unnamed Tributary to North Fork Mill Creek at location 35.89714 -087.35708.



Photo 9      Site: North Fork Mill Creek      Date: October 21, 2014  
Time: 1435 hrs      Direction: Northeast      Personnel: John Hoffelt, TDOR; Candice Teichert, US EPA  
Description: NPDES outfall identification sign at Bon Aqua-Lyles Utility District outfall into Unnamed Tributary to North Fork Mill Creek at location 35.89714 -087.35708.